

Pathology & Microbiology Newsletter Bi-monthly News Bulletin Atlantic Veterinary College University of Prince Edward Island Issue 60 October 2021



# Dr. Gary Conboy Conferred the Rank of Professor Emeritus



Congratulations are extended to Dr. Gary Conboy on being conferred the rank of Professor Emeritus by the University of Prince Edward Island. Dr. Conboy joined the department in August 1991 as an assistant professor of veterinary parasitology. He obtained the rank of full professor in June 2012 and retired in December 2020 after 29 years of dedicated service. Dr. Conboy is an internationally renowned veterinary parasitologist as a result of his innovative research on metastrongyloid parasites and expertise in morphological identification of helminth parasites. He has more than 60 peer-reviewed publications and is co-author of the 7th, 8th, and 9th editions of Veterinary Clinical Parasitology, a textbook used in both teaching and as a benchtop reference text. Dr. Conboy continues to be a generous mentor to students and colleagues, including the training of numerous graduate students and veterinarians seeking Diplomate status in the subspecialty of veterinary parasitology with the American College of Veterinary Microbiology. Dr. Conboy maintains his role as section head of veterinary parasitology for AVC Diagnostic Services and consults locally and internationally in his field.

He also continues to bring joy to the workplace by sharing his fantastic and dry sense of humor, often via cringe worthy puns. We have been very fortunate to have Dr. Conboy in our department and we hope he continues to collaborate with us for many years to come.

## Pathology and Microbiology Welcomes Dr. Lisanework Ayalew



The Department of Pathology and Microbiology welcomes **Dr. Lisanework Ayalew** who started his tenure-track faculty position in Veterinary Bacteriology on September 1st, 2021. Dr. Ayalew is a board-certified microbiologist by the American College of Veterinary Microbiologists in Bacteriology & Mycology and Virology specialties. He obtained his DVM degree from the Faculty of Veterinary Medicine, Addis Ababa University, Ethiopia. At the end of 2014, he completed his PhD in veterinary microbiology at the Vaccine and Infectious Disease Organization-International vaccine Centre (VIDO-Intervac), Department of Veterinary Microbiology, University of Saskatchewan. After completing his PhD program, he joined the Department of Veterinary Pathology at the Western College of Veterinary Medicine (WCVM) as a postdoctoral fellow, working on developing vaccines and understanding the pathogenesis of various avian bacterial and viral diseases. His PhD work on host-pathogen interactions was based on bovine adenovirus-3 which has been developed as a vaccine delivery vector. Prior to coming to the AVC, Dr. Avalew worked as a professional research

associate at the WCVM. In this role, he was involved in different research projects which mainly focused on emerging and re-emerging avian bacterial and viral diseases, as well as teaching/mentoring undergraduate and graduate students. As a guest lecturer, he also taught a vaccinology and immunotherapeutic course at the School of Public Health at the University of Saskatchewan.

## Pathology and Microbiology Welcomes Dr. Shivani Ojha



The Department of Pathology and Microbiology welcomes Dr. Shivani Ojha who will start her tenure track position as a clinical bacteriologist on November 1, 2021. Dr. Ojha is formally from Bikaner, India, where she studied veterinary science at the College of Veterinary and Animal Sciences (CVAS, Rajasthan Agriculture University). Her interest in diagnostic research started with a study on the prevalence of mastitis pathogens in goats at the CVAS. She later, moved to Canada to start her PhD program at Ontario Veterinary College (OVC), University of Guelph. There, her research was focused on the identification and characterization of the colonization genes of a porcine pathogen, Actinobacillus suis. Along with her understanding of the pathobiology of A. suis, Dr. Ojha's study generated animal models and was recognized by the Canadian Society of Microbiologists (CSM) as excellence in research. While working as a research fellow in federal and University of Guelph diagnostic laboratories, she was exposed to the molecular methods for risk assessment and management of veterinary pathogens in public health. Recently, Dr. Ojha became a Diplomate of Microbiology at the American

College of Veterinary Microbiologists (ACVM), specializing in bacteriology and mycology. Dr. Ojha has a love for diagnostic research and her passion continues in the field of bacteriology and virology. Shivani enjoys gardening and spending time with her husband and 12 year old son.

## Dr. Kibenge Appointed to the Board of Editors of Microbiology Spectrum



Dr. Fred Kibenge has been appointed Editor of Microbiology Spectrum® (Spectrum) (<u>https://journals.asm.org/journal/spectrum/board-editors</u>) effective August 17, 2021. Microbiology Spectrum is a new journal in the American Society of Microbiology suite of journals, and can be found at the following link:

https://journals.asm.org/journal/spectrum/about

## Dr. Gary Conboy Publishes Textbook



9<sup>th</sup> Editio

Anne M. Zajac | Gary A. Conboy Susan E. Little | Mason V. Reichard



The ninth edition of the widely used parasitology diagnostic guide, Veterinary Clinical Parasitology, has just been released. Authored by Drs. Anne Zajac, **Gary Conboy**, Susan Little and Mason Reichard, it is revised and expanded from the previous edition with the addition of many new images. Presented in color, many of the helminth and protozoan images contained in the book were contributed by Dr. Gary Conboy taken from his research program and the caseload of AVC Diagnostic Services.

# **New ACVP Diplomate**



The Department of Pathology and Microbiology was pleased to learn that **Dr. Kimberley Foote**, a past clinical pathology resident and graduate student, is now a Diplomate of the American College of Veterinary Pathologists (ACVP). Dr. Foote passed Phases 1 and 2 of the rigorous certifying examination of the ACVP, a feat made more challenging by the recent move to an online format. Dr. Foote is currently working as a diagnostic clinical pathologist for Langford Vets Diagnostic Laboratories near Bristol in the United Kingdom.

Congratulations Dr. Foote!

#### Pathology and Microbiology Welcomes New Graduate Student



The department welcomes **Muskan Zaidi** as an MSc student under the supervision of **Dr. Mark Fast.** Ms. Zaidi graduated from UPEI in 2021 with a Bachelor of Science (Honours) degree, majoring in biology. In her free time she loves reading, volunteering, and spending time with friends and family.

# Pathology and Microbiology Welcomes Exchange Student



The department welcomes **Francie Gomez Barrera** as an MSc student under the supervision of **Dr. Mark Fast**. Ms. Gomez-Barrera is an exchange student with the Emerging Leaders in the Americas Program (ELAP). She is visiting from Colombia and is in her last year of veterinary medicine at the National University of Colombia. This exchange represents a great opportunity to deepen her knowledge related to her professional studies, in fish medicine and pathology. Francie is participating in extracurricular courses in wildlife animal health, veterinary pathology, and aquatic toxicology and fish medicine.

## Summer Research & Leadership Program Poster Award Winners

2nd Place: **Olivia Galeuzzi**, supervised by **Drs. Megan Jones**, **Melanie Buote** and her graduate student mentor **Will Robbins**. Her poster was titled "Novel finding in Prince Edward Island: *Echinococcus multilocularis* in a Red Fox."

3rd Place (tie): **Raelyn McCurdy**, supervised by **Dr. Mark Fast** and her graduate mentor Zahra Kalvani. Her poster was titled "Impacts of single and repeated formalin baths and jellyfish exposures on gill pathology in Atlantic salmon."

3rd Place (tie): **Angelica Fieglar**, supervised by Drs. Stephanie Hamilton and **Dave McRuer**, her graduate mentor was **Will Robbins**. Her poster was titled "Pilot study on the efficacy of tiletamine / zolazepam with butorphanol, medetomidine and azaperone for the immobilization of captive plains bison."

## Canadian Wildlife Health Cooperative Responds to Stranded Whales

The Canadian Wildlife Health Cooperative (CWHC) recently responded to the stranding of two northern bottlenose whales (*Hyperoodon ampullatus*) in Quebec, across the Chaleur bay from Campbellton, NB. Both whales initially stranded alive, but one died overnight and the other was missing the following morning and is presumed to have refloated. A complete necropsy was performed that afternoon on the dead whale. This whale was a male in good nutritional condition with no apparent predisposing conditions for stranding.



Additional diagnostic tests are being performed to investigate any underlying conditions. These may include infectious diseases, toxin exposure, or possibly barotrauma due to sudden resurfacing (the bends). Bottlenose whales are part of the enigmatic "beaked whale" family and much of their biology and behaviour is unknown due to their deep and prolonged dives (>1 hr at >1 km deep). The offshore Nova Scotia population (of which this whale is assumed to be a member) is listed as endangered under Canada's Species At Risk Act, and the species as a whole is considered near threatened by the International Union for the Conservation of Nature. Should

further diagnostics on this case be unrewarding, the cause of stranding will be presumed to be due to unknown environmental conditions or roaming behaviours which lead these two whales to be far from their normal geographical home range.

Photo: Dr. Laura Bourque, Wildlife pathologist with the CWHC with a stranded Northern Bottlenose whale.

# Departments of BioMedical Sciences and Pathology and Microbiology Fall Seminar Series Notice

Speaker : Laura Groves, MSc student, Pathology and Microbiology

**Title:** How Temperature Impacts the Atlantic Salmon's (*Salmo salar*) Immunological Response to Infectious Salmon Anemia Virus (ISAv).

**Date**: Wednesday, November 3, 2021

Location: Lecture Theatre B, Room 205N, AVC

**Time:** 2:30-3:30, All Welcome!

## Publications

**Uribe-Diaz S**, Nazeer N, Jaime J, Vargas-Bermúdez DS, Yitbarek A, Ahmed M, **Rodriguez-Lecompte JC**. Folic acid enhances proinflammatory and antiviral molecular pathways in chicken B-lymphocytes infected with a mild infectious bursal disease virus. British Poultry Science, DOI: 1080/00071668.2021.1958298. <u>https://doi.org/10.1080/00071668.2021.1958298</u>. Patial S, Delcambre BA. DiGeronimo PM, **Conboy G**, Vatta AF, Bauer R. Verminous meningeoncephalomyelitis in a red kangaroo associated *Angiostrongylus cantonensis* infection. Journal of Veterinary Diagnostic Investigation 2021:DOI:10.1177/10406387211037664jvdi.sagepub.com

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Fish Health Forum interview with **Dr. Mark Fast.** "Seeking a better understanding of complex gill disease in salmon. <u>https://fishhealthforum.com/seeking-a-better-understanding-of-complex-gill-disease-in-salmon/</u>

Nazeer N, **Rodriguez-Lecompte JC**, Ahmed M. Bacterial-Specific Aggregation and killing of Immunomodulatory Host Defense Peptides. Pharmaceutical 2021;14:839. <u>https://doi.org/10.3390/ph14090839</u>.

Soto E, Coleman D, Yazdi Z, **Purcell SL**, Camus A, **Fast MD**. Analysis of the white sturgeon (*Acipenser transmontanus*) immune response during immunostimulation and *Veronaea botryose* infection. Elsevier: Comparative Biochemistry and Physiology-part D: Genomics and Proteomics. 2021; 40:100879.

**Kibenge F, McKibbon A, Kibenge M**, Wang Y. Bioinformatics Analysis Identifies a Small ORF in the Genome of Fish Nidoviruses of Genus *Oncotshavirus* Predicted to Encode a Novel Integral Protein. Microbiology Research 2021;12:753-764. <u>https://doi.org/10.3390/microbiolres12040055</u>.

**Kaiser N**, Greenwood SJ, Gouchie GM, **Martinson S**. *Encephalitozoon pogonae*–associated systemic vasculitis in a central bearded dragon (*Pogona vitticeps*). Journal of Herpetological Medicine and Surgery: 31 (3) 168–172, 2021.

Nino-Fong R, Esparza Gonzalez BP, **Rodriguez-Lecompte JC**, Montelpare W, McDuffee L. Development of biologically immortalized equine stem cell line. Canadian Journal of Veterinary Research 2021; 85: 293-301.

Marin SL, **Fast MD**. *Caligus rogercresseyi* and caligid sea lice species. Fish Parasites: A Handbook of Protocols for their Isolation, Culture and Transmission Edited by Ariadna Sitjà-Bobadilla, James. E. Bron, Geert Wiegertjes and M. Carla Piazzon Book Chapter 22.

**Jones MEB, Daoust PY**, A Syndrome of Ischemic Leg Necrosis in Northern Gannets (*Morus bassanus*). Journal of Wildlife Diseases 2021; 57(4):865-873.

For comments or suggestions for our newsletter, please contact: Dr. Russell Fraser (rufraser@upei.ca) or

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